

TO: Inspection Branch/PD/OL

DATE 29 February 1962

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REPORT PERIOD: Final

CONTRACT # [REDACTED]

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REPORT # Final

(If final, so state)

Contractor [REDACTED]

Address [REDACTED]

Commodity/Service Breadboard

Classification Unclassified

No. Of Prototypes One (1)

Contract Completion Date 5 JAN 62

The Contract is on schedule: ☒ Yes ☐ No

The Contractor will remain within his allocated funds: ☒ Yes ☐ No

An extension of time will be necessary: ☐ Yes ☒ No

All phases of the technical progress are satisfactory: ☒ Yes ☐ No

The overall performance of this Contractor is: ☒ Satisfactory

NOTE: If unsatisfactory or subject to improvement indicate reasons under comments.

☐ Subject to improvement

☐ Unsatisfactory

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Comments: Equipment demonstration was witnessed by [REDACTED] on 9 February 1962, at the [REDACTED] facility. This demonstration showed the feasibility of edge and line detection as an aid to high precision mensuration. A final report and various photographs of the "breadboard" have been received.

Recommended Action: That the breadboard demonstrating the feasibility of edge and line detection techniques be accepted as the satisfactory completion of this contract. It is further recommended that [REDACTED] be contacted to return the few items incorporated in the breadboard which were purchased pursuant to this contract. It is understood that the vast majority of equipment used in the breadboard was equipment from the Image Correlator presently being developed by [REDACTED]

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Date of last visit to Contractor's Plant: 9 February 1962

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Inspected by [REDACTED]

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Division & Extension TID [REDACTED]

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Declass Review by NIMA/DOD

27 February 1962

MEMORANDUM FOR: Chief, Technical Intelligence Division

THROUGH: Chief, Technical Plans & Development Staff

SUBJECT: Final Acceptance of Contract [redacted] Task Order #3,
STATINTL [redacted]

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1. The purpose of the edge and line detection program is to investigate the feasibility of using the flying spot scanner technique to make accurate repeatable photogrammetric measurements. The program is to develop laboratory equipment which aligns an edge in a photograph with the direction of a flying spot scanner and to display the actual profile of the edge. The mode of operation is to output a scan, moving parallel to the edge, which will be correlated separately with the scan of the photograph ramp, one increasing in density while the other decreases. The results of the two correlations (multiplication and integration) of the products of a single scan will be developed to yield a null when the scan is parallel to the edge. A display is provided of the average edge profile of the scanned region. Measurements between edges can be made by use of the profile display and a Vernier adjustment.

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2. A demonstration of this equipment was witnessed by [redacted] and [redacted] on 9 February 1962 at the [redacted] facility. The demonstration was conducted by [redacted]

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After discussions with [redacted] personnel it appears to the undersigned that the feasibility study witnessed by [redacted] is a satisfactory conclusion to this development contract, but that the development to date cannot be directly incorporated in any high precision measuring equipment such as a [redacted] Comparator or [redacted] Dual Screen Comparator. It is believed that before such equipment is modified to incorporate edge and line detecting techniques that a prototype be developed and tested in equipment not involved in production work. The problem of providing the comparator operator with a CRT presentation of the integrated edge is feasible technically, but it is still the problem of the comparator operator to make the decision as to where on the slope of the edge the edge actually is. This would require training and experience in some depth. It is, therefore, recommended that [redacted] TID/TAB, determine whether he believes the techniques seen to date warrant further development. It is also recommended that the [redacted] GIANT which is presently being modified for use as a rear projection comparator be considered as the test bed for any future work in edge and line detection.

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3. A final report has been received from [redacted] and various photos were taken of the breadboard during final acceptance. The development pursuant to Contract [redacted] Task Order #3, is accepted, as noted in the inspection report form provided by PD/OL.

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